that the FCC should set very general guidelines for collocation, but case-by-case collocation determinations should be left to the states. For example, Colorado has telephone service provided to customers via equipment that may be located in a back room of the residence of the owner of a small independent telephone company. USWC has replaced antiquated electromechanical equipment in Colorado over the years resulting in substantial vacant floor space in many equipment buildings. Such space could allow for physical collocation of new entrant facilities. Therefore, in Colorado there exists a vast difference in the availability of space where physical collocation may be a practicable requirement.

43. The CoPUC has adopted rules that require a telecommunications provider to provide collocation pursuant to rates, terms and conditions that are just, reasonable, and nondiscriminatory for the physical collocation of equipment necessary for interconnection or access to unbundled network elements at the telecommunications provider's premises. Furthermore, a telecommunications provider may provide virtual collocation if the CoPUC determines that physical collocation is not practical for technical reasons or because of space limitations. It is the intent of the CoPUC that such determination will be made on a location by location, floor by floor basis.

44. To the extent the FCC desires to make a certain level of physical collocation a requirement under the section 271 checklist, then it would be appropriate for the FCC to establish specific requirements that the BOCs are to meet.

45. ***[NPRM ¶ 71] Should physical collocation at the premises of the incumbent LEC include, in addition to incumbent LEC central offices or tandem offices, all buildings or similar structures owned or leased by the incumbent LEC that house LEC network facilities?***

The CoPUC generally supports the FCC definition of premises for the purpose of collocation rules. However, it appears that the FCC requirement excludes cable vaults, remote optical network units, repeater sites, concentrators, etc., that may be used to house telephone network equipment and should be included.

46. ***[NPRM ¶ 72] Section 251(c)(6) requires the incumbent LEC provide for physical collocation of equipment necessary for interconnection or access to unbundled network elements. What types of equipment are necessary for interconnection or access to unbundled network elements?*** The CoPUC generally recommends that no limitation be placed on the type of equipment that might be collocated at a LEC premises and used for interconnection or to unbundled network elements. However, it should not be a blanket requirement that a LEC must make its space available for whatever purpose. While equipment or functions may be required by a new entrant for the provision of its telecommunications services, it would be inappropriate to require the incumbent to furnish floor space for any and all requests of a new entrant.

c. Unbundled Network Elements

47. ***[NPRM ¶ 77] What network elements should incumbent LECs be required to unbundle for any requesting telecommunications carrier for purposes of subsection (c)(3)?*** In adopting its rules relating to interconnection and unbundling, the CoPUC sought input from the existing local exchange providers and new entrants interested in providing telecommunications services. Initially, carriers such as MCI requested more than 30 unbundled network elements. USWC offered to unbundle the loop, local switching, and tandem switching.

During the latter part of the Working Group sessions, the new entrants agreed to a greatly reduced list of eleven elements, including: Loop Concentration; Loop Distribution; Loop Feeder; Local Switching; Common Transport Links; Dedicated Transport Links; Local and Toll Tandem Switching; Operator Systems; Signaling Links; Signal Transfer Points and Service Control Points. After much discussion in the rulemaking proceedings, however, it was difficult for USWC to distinguish clearly between loop distribution and loop feeder, and in consideration of the items found in the competitive checklist, section 271(c)(2)(B), the CoPUC defined the following elements as essential facilities or functions that are to be offered by the incumbent telecommunications provider in Colorado: Loop; Local Switching; Common Transport Links; Dedicated Transport Links; Local and Toll Tandem Switching; Operator Systems; Signaling Links; Signaling Transfer Points; and, Access to each Service Control Point via Signal Transfer Points.[26] While this is a minimum list, incumbent telecommunications providers are not precluded from offering a greater number of unbundled facilities or functions.

48. ***[NPRM ¶ 78] Should states be permitted to require additional unbundling of LEC networks?*** Yes. Transition to competition will take time. Therefore, the CoPUC determined the nine elements it identified as essential elements provided a minimum list that generally comported to the requirements of the new entrants. The main issue remaining is that the new entrants desire a further unbundling of the local loop into its component pieces.

49. ***[NPRM ¶ 79] Should the FCC establish minimum requirements governing unbundling, beyond merely identifying network elements that incumbent LECs must provide an unbundled bases pursuant to subsection (c)(3)?*** Uniform technical standards for the entire

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[26] See Attachment A, Rule 6.2 of Commission Decision C96-347, Docket No. 95R-556T.

United States is a laudable goal and might make it easier for a multistate provider, such as AT&T, to provision its services. However, the CoPUC suggests that mandated technical standards must be considered very carefully before they are adopted. Application of standards that require services such as ISDN may work for customers located 12 to 18 kilofeet from the central office but may be impractical for customers that are located 260 kilofeet from the central office unless a significant amount of capital is expended to furnish such service. Colorado, for example, only recently completed its elimination of four-party service, implementing single party service throughout Colorado. Even with single party service, the provision of data in excess of 2400 bps can be challenging in remote areas of the state. Some customers in Colorado are located more than 25 miles from any public roads and USWC has exchanges where the furthermost customers can be up to 45 miles from the central office. Loops of these lengths take special equipment to furnish dial tone, let alone high speed data.

50. ***[NPRM ¶ 80] To what extent should any FCC rules for unbundled network elements allow for variation among the states? Should the rules permit states to impose different obligations to address state-specific concerns and to experiment with alternative approaches? How will these variations affect the goals of the 1996 Act and the ability of new entrants to configure national networks?*** The CoPUC recommends that the FCC consider adopting some broad rules concerning the minimum number of network elements that are recommended to be unbundled. This will allow various states to experiment with various numbers of network elements. Over time, a set of network elements that are standard throughout the country will emerge. Again, this is a time of transition from a monopoly environment to competition.

51. *[NPRM ¶ 81] What policies have the states adopted regarding unbundling?* As pointed out earlier, the CoPUC has adopted some minimum standards with respect to the minimum number of unbundled network elements. The CoPUC considers this list of minimum elements as essential and must be provided by the incumbent LEC.

(1) Network Elements

52. *[NPRM ¶ 83] Which interpretation of "network element" should be adopted (a flexible or less flexible definition) and how should it be applied?* The CoPUC considered unbundling the local loop into three elements: Loop Concentration, Loop Distribution, and Loop Feeder. However, while one may be able to distinguish between the Loop Concentrator and the other part of the Loop, the distinction between the Loop Distribution and Loop Feeder is blurred. In an all copper loop plant, the customer is connected to the central office by a dedicated pair of wires. It is difficult to identify the point in a copper network where the loop feeder ends and the loop distribution begins. Therefore, the CoPUC proposed that the local loop be unbundled from the other network elements, such as local switching, and allow USWC to further unbundle the loop as demand occurs. Therefore, the essential network elements identified by the CoPUC, include the loop as a single element.

(2) Access to Network Elements

53. *[NPRM ¶ 86] Should incumbent LECs be required to provide requesting carriers with the ability to obtain a particular network element's functionality for a fee? For example, should a requesting carrier be able to purchase the local loop's function of*

transmitting signals from a LEC central office to a customer premises, separate from that of other functionalities or network elements including the local switch? Should separate charges be levied for each purchased network element? The CoPUC is considering these issues and currently supports the concept that when a LEC offers unbundled network elements for purchase, such elements will be priced and charged for separately.

54. ***[NPRM ¶ 89) What is the advisability of establishing minimum requirements for the "terms" and "conditions" that would apply to the provision of all network elements?*** Again, very general terms and conditions would be useful. However, due to varied size of the incumbent LECs in Colorado and even the level of evolution of the network of USWC, some minimum terms could be difficult to achieve in the short term. A consideration for USWC, even now, is that it is does not possess a 100% digital network as of this date. USWC still possesses a number of stored program control analog switches, including AT&T 1A ESS switches. Some of the new features and functions may not be technically or economically feasible from the 1A ESSs. In the area of provisioning of outside plant, the terrain of Colorado is varied. The eastern plains have sandy soils and installation is relatively straightforward. However, much of the mountain areas require special construction to bury cable or support poles. In fact, in some areas the ground is so rocky that burying cable is impossible and USWC uses sections of submarine cable placed on top of the ground with a marginal covering over it. It would be impossible to develop a standard set of terms and conditions for laying submarine cable in the Rocky Mountains. Specific national standards, that will address every situation in each of the fifty states, is impossible and unnecessary.

(3) Specific Unbundling Proposals

(a) Local Loops

55. ***[NPRM ¶ 95] Should the incumbent LECs be required to provide local loops as unbundled network elements, as stated in the Joint Explanatory Statement and the § 271(c)(2)(B) checklist?*** The CoPUC, in its rules, has already identified that unbundled local loops are essential network elements for the provision of service by alternate local exchange providers.

d. Pricing of Interconnection, Collocation, and Unbundled Network Elements

(1) Commission's Authority to Set Pricing Principles

56. ***[NPRM ¶¶ 117 - 122] What is the FCC's General Authority to Set Pricing Principles?*** If the FCC determines that a national policy for costing and pricing of interconnection, collocation, and unbundling is necessary -- a proposition which we oppose -- the CoPUC encourages the FCC to adopt only broad guidelines that give the states substantial flexibility in implementing and administering the policy. We realize that the 1996 Act requires the FCC to complete the establishment of regulations to implement the 1996 Act by August 8, 1996[27]. However, the issues surrounding the development of appropriate costing and pricing methodologies for the myriad services offered by the LECs historically have been addressed by the states. In Colorado, for example, we have made significant progress toward providing for

[27] § 251 (d)(1) requires that the FCC complete all actions necessary to establish regulations to implement the requirements of §251 within six months of the enactment of the 1996 Act.

a competitive telecommunications environment. We see no reason to change this.

57. The CoPUC has considered most of the issues embodied in ¶¶ 117 through 157 of the NPRM in great detail in a rulemaking docket.[28] In the docket, the CoPUC considered extensive comments from all major participants[29] that will likely parallel the comments the FCC will receive in the responses to this NPRM. In additional workshops, the CoPUC addressed in great detail the issues of appropriate cost studies and pricing methodology raised in this NPRM. We will refer to specific portions of the Colorado Costing and Pricing Rules throughout these comments where appropriate.

58. In general, the CoPUC believes that cost studies produced by telecommunications providers grant sufficient latitude and variability for such providers to game the system to their advantage. The local telecommunications industry has a large majority of its costs associated with shared and common equipment and personnel. It is to the industry's advantage to gain significant advantages of economies of scope and scale. Simple calculations of investment and expense data from a local exchange service provider show that as much as 90 percent of the costs of providing all of the many telecommunications services may be considered as shared or

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[28] See attached Commission Decision No. C93-612 in Docket No. 92R-596T adopting Rules Prescribing Principles for Costing and Pricing of Regulated Services of Telecommunications Service Providers (4 CCR 723-30), hereinafter called "Costing and Pricing Rules".

[29] Official parties of Docket 92M-039T and Docket 92R-596T were U S WEST Communications, Inc., AT&T Communications, Inc., MCI Telecommunications, Inc., Department of Defense and all Federal Executive Agencies, Colorado PUC Staff, Colorado Municipal League, Colorado Cable Television Association, Teleport Denver (a\k\a ICG Access), Colorado Office of Consumer Counsel, Sprint, and a consortium of small independent telephone companies.

common costs[30]. Because this industry has developed in such a way that encouraged the integration of the system to deploy the maximum number of services over the public switched network, it is not surprising that a large part of the costs of providing the services are shared or common costs. The CoPUC has invested significant time in evaluating various costing methodologies and actual cost studies, enough to know that development of FCC rules that are any more specific than Colorado's Costing and Pricing Rules would not be advisable.

59. In its development of costing methods for local exchange service providers within Colorado, the CoPUC required USWC to develop and file cost manuals with the CoPUC, under confidential seal, describing the company's cost methodology. The CoPUC has invested a large amount of time developing acceptable cost studies to understand these methodologies. It is difficult to imagine the FCC performing a similar task that would be suitable for all providers.

60. ***[NPRM ¶ 117] Does the statutory language of §§ 251(c) and (d) establish the FCC's authority to adopt pricing rules to ensure that rates for interconnection, unbundled network elements, and collocation are just, reasonable, and nondiscriminatory? Does the FCC***

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[30] Based upon basic USOA data, the total investment of a local exchange company is comprised of shared investments of approximately 40 percent in loop plant, 35 percent in central office equipment, and 10 percent in land and buildings. Only 15% of the remaining investment might be considered as directly allocated to specific services. Since over 30 percent of the company's cost of service is attributable to the carrying charges (depreciation) on these investments, it can be concluded that over 25 percent (85 percent of 30 percent) of the total expenses are shared or common investments. Additionally, another almost 25 percent of the total cost of service are expenses that follow the investments, *i.e.*, they are also shared or common costs. Thirdly, approximately 17 percent of the cost of service are attributable to expenses for corporate operation, truly a common overhead expense. Finally, another 17 percent are attributable to marketing and customer operations, expenses that require special time reporting studies to determine apportionment of costs to specific services. Summing these up shows that almost 90 percent of the total cost of service must be allocated in some way, leaving room for significant opportunities to game the system.

also have statutory authority to define what are "wholesale rates" for resale and what is meant by "reciprocal compensation arrangements: for transport and termination of telecommunications? We agree that the FCC has the authority to establish regulations to implement § 251 of the 1996 Act. However, we recommend that if the FCC adopts any pricing guidelines, it also provide the states sufficient statutory flexibility to implement the details of costing and pricing to the expertise in the states.

61. *[NPRM ¶ 118] Does The 1996 Act suggest that it is appropriate for the FCC to establish pricing principles to be used by the States to evaluate rates in arbitrations and to review BOC statements of generally available terms and conditions?* It is the CoPUC's opinion that the 1996 Act clearly gives the States the responsibility of approving or disapproving the rates, terms and conditions for interconnection, unbundled network elements, wholesale services, and reciprocal compensation arrangements. The FCC is asked only to intervene if a State does not act or acts in opposition to the 1996 Act. Therefore, the FCC's role should be one of establishing only very broad guidelines. The States have the statutory responsibility to comport with conditions of the 1996 Act.

62. *[NPRM ¶ 119] Should the FCC develop national pricing principles to improve opportunities for local competition by reducing or eliminating inconsistent state regulatory requirements?* Too much diversity exists within the United States to consider a detailed national policy. Each state is composed of different demographics, geographics, and statutory requirements. While a national pricing policy likely would increase the predictability of rates, and facilitate negotiation, arbitration, and review of agreements, the CoPUC does not agree that national pricing principles should be used for the purposes expressed in the latter sentence. A

nationwide rate would solve one problem, but it is not the solution that anyone is looking for. Most of the new entrants participating in the Colorado Local Number Portability Task Force have expressed a desire to have national uniformity; but few expect that it will actually happen. They seem to be willing to work within reasonable variations between states or regions. If the FCC is proposing national standards for the purpose of eliminating the possibility of specific states' divergence from the requirements of the 1996 Act, the CoPUC does not oppose broad guidelines or principles that will accomplish that goal. If a state develops rules that are in contradiction of the 1996 Act, the FCC should have general principles under which it can take action.

63. ***[NPRM ¶ 120] Should any pricing principles developed by the FCC not recognize the traditional jurisdictional distinctions of interstate versus intrastate service and facilities? Should the FCC's cost allocation rules in Part 64 be revised or should a similar set of cost allocation rules be developed to remove costs and revenues provided pursuant to §§ 251 and 252?*** The FCC has noted that the 1996 Act does not make jurisdictional distinctions between interstate and intrastate services and facilities.[31] From sample Subscriber Line Usage ("SLU") studies provided by LECs in Colorado, the measure of local and intrastate traffic far outweighs the amount of interstate and international traffic.[32] With this fact in mind, it is our opinion that the elimination of jurisdictional distinctions points toward the States having the predominant expertise and interests. In addressing the issue of revision of cost allocation rules

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[31] The FCC should also note that the 1996 Act also does not make a distinction between international services and facilities and the other jurisdictions.

[32] In normal Colorado SLU studies, the amount of local and intrastate traffic is in the range of 80 percent.

in Part 64, it is imperative that the intent of Part 64 safeguards be maintained and that appropriate revisions be made to accommodate the exclusion of costs and revenues of services in sections 251 and 252 before the separations process is applied.

(2) Statutory Language

64. *[NPRM ¶ 121] What are the proper interpretations of the statutory provisions noted and what specific principles should the FCC promulgate to ensure that the rates established are just, reasonable, and nondiscriminatory? What national pricing principles should the States apply in setting and reviewing rates? What enforcement or monitoring mechanisms, if any, should the FCC or industry adopt to ensure that all carriers comply with any pricing principles that the FCC establishes?* Subsection 251(d)(1) uses two requirements to define just and reasonable rates. They must be: a) nondiscriminatory and cost-based and b) may include a reasonable profit. In Colorado's recently completed rulemaking, it was apparent that two basic positions exist on this definition. First, the incumbents interpret this to mean that they can recover the full cost of the investment, including a reasonable share of shared and common costs. Second, the new entrants interpret it to mean that the rates should be equal to costs and that standard Total Service Long Run Incremental Costs (TSLRIC) costs already include a reasonable profit. The CoPUC believes it is enough to recognize the statutory provision and not to try to interpret it. An example of the kind of morass that lies ahead is in the interpretation of the parenthetical "determined without reference to a rate-of-return or other rate-based proceeding." On its face, to interpret this to mean that existing rate-base, rate-of-return proceedings that use accounting-based costs, such as fully distributed costs, are

disallowed, seems simple enough. However, to anyone who as ever done the complete analysis of a cost study for a telecommunications service provider, almost all costs are based upon some measure of historical, accounting costs and include some type of rate-of-return (e.g. cost of money) additives. States should be given the latitude to use this statutory provision to determine just and reasonable rates, just as they are doing today. Any additional interpretation will cause further confusion. See the attached Colorado Costing and Pricing Rules for examples of pricing recommendations. Consistent with the CoPUC's view that the FCC should not address or develop costing and pricing rules, it follows that the FCC also need not address enforcement and monitoring issues.

65. ***[NPRM ¶ 122] Should the same pricing principles apply to interconnection, unbundling, and collocation? Should collocation be a subset of interconnection?*** The CoPUC agrees with the FCC that there is no obvious reason to have differing pricing principles for any service that is under § 251 (c)(2) and (c)(3) of the 1996 Act. Interconnection and unbundling provide no apparent distinction that would require such a pricing policy difference. We believe that collocation could be considered as a subset of interconnection services.

(3) Rate Levels

66. ***[NPRM ¶ 123] In determining interconnection rates, does the 1996 Act preclude states from using traditional cost-of-service regulation, with historical costs and rate bases, and instead, contemplates the use of price caps and forward-looking methodologies?*** The issue of the provisions in § 251 (d)(1) was discussed above. All cost studies use some measure of historical costs. Without historical costs as a basis, all forward-looking costs would have no

meaning. We believe that the statute was written to preclude the use of historical accounting cost studies (e.g. fully distributed studies) from being the sole basis for the determination of prices. The use of typical industry espoused cost studies (e.g. LRIC or TSLRIC) seems to satisfy this requirement for the determination of a price floor with the ability to add a "reasonable profit" to this floor. Interestingly, this constitutes "cost-plus" pricing, or, quite possibly, rate-of-return pricing.

67. ***[NPRM ¶ 124] General statements made by the FCC concerning competition and the LRIC costing methodology.*** The FCC's statement that "economists generally agree that rates based upon LRIC give appropriate signals to producers and consumers and ensure efficient entry and utilization of the telecommunications infrastructure" is not necessarily true. Economists might generally agree that marginal cost pricing leads to efficiency but LRIC is not a true measure of marginal cost. It is often represented by industry proponents as such in theory, but our experience with LRIC studies offered by providers is that what has been represented as a surrogate for marginal costs is not truly a marginal cost, especially when considering the large proportionate share of shared and common costs that disappear in a typical LRIC study. If an industry player priced its services at LRIC, that player would not be sending appropriate pricing signals to producers and consumers. The rather recent concept of TSLRIC[33] provides a much better conceptual basis for the determination of an appropriate economic cost concept; however, TSLRIC does not measure marginal costs and the actual implementation of the concept remains fraught with substantial shared costs and similarities to

[33] The concept of TSLRIC was first introduced in Colorado in 1992 in our Costing and Pricing Rulemaking workshops (Docket No. 92M-039T and Docket No. 92R-596T).

traditional LRIC studies. Additionally, most TSLRIC or LRIC-type studies are replete with market forecasts used as the basis for major costing decisions.

(a) LRIC-Based Pricing Methodology

68. ***[NPRM ¶ 126] Please define with specificity the following terms and why you support that particular definition: LRIC, TSLRIC, forward-looking costs, joint costs, common costs, shared costs, stand-alone costs, embedded costs, fully distributed costs (FDC), overheads, contribution, and residual costs.*** The terminology within the industry for cost determination does not provide a rational way to compare the costs with costs espoused in standard economics textbooks. The cost determination in the telecommunications industry has originated its own economic literature relating to the costing and pricing of telecommunications services. Virtually any costing and pricing theory may be found to support any given desired outcome. The CoPUC has defined many of the terms relative to costs in its Costing and Pricing Rules using definitions from textbooks and industry. However, USWC refuses to use the terms in our rules. Instead, USWC defines its own terms for such costs as: service-specific fixed costs, service-specific variable costs, shared residual costs, and common and overhead costs. The CoPUC suggests that the FCC examine and possibly use the definitions in the Colorado Costing and Pricing Rules attached to these comments. We do not believe that the FCC should determine the specific methodology for cost calculations.

69. ***[NPRM ¶ 128] What costing methodologies are used by various States and to what extent are these approaches consistent with one another and with the pricing principles and goals of the 1996 Act? Should any State's method be used as a model for a federal***

policy? The CoPUC cannot comment on any of the specific costing methodologies from other states, especially with this limited amount of information. The fact that we cannot comment on each state's specific costing methodology, despite the fact that the same terminology might be used, is exactly the reason why we believe that specific costing methodologies should be left to the purview of the states. Although different providers within Colorado use a common set of rules, we know that their cost studies use different specific internal methods that require careful examination by the CoPUC. Without this detailed examination, the providers are able to provide less-than-adequate analyses.

70. ***[NPRM ¶ 129] What are the advantages and disadvantages of the alternative approaches to cost methodologies?*** The production of LRIC-based costs, including TSLRIC, means different things for different providers. TSLRIC costs for one provider's local exchange service may include the total cost of the loop and port, as well as the estimated incremental costs for such items as local switching, billing, and directory services. Another provider may interpret the TSLRIC cost of a dedicated fiber circuit to include the electronics on each end and to exclude any cost of cable and wire because it was an embedded investment and not part of the LRIC costs. A third provider may calculate the LRIC-based cost of local exchange service to be the incremental cost of adding two-way voice grade to an existing CATV system. Using pure LRIC analyses[34] it would be possible to sum the LRIC costs of all services, then multiply

[34] In a pure TSLRIC world, the TSLRIC cost of a service would equal to the difference in costs incurred by the provider without that service and the costs to the provider after adding that service. For example, the pure TSLRIC of interexchange toll service would be the difference between the total costs of the provider without offering toll service and the total costs of the provider after adding toll service. This would include the addition of certain interexchange transport, possibly some local switching capacity, and possibly some administrative and billing functions. Traditionally, this is the type of TSLRIC cost one will get for toll services. In other

by the number of quantities in service, to calculate a number significantly less than the provider's total forward-looking costs.

71. In USWC's current cost studies, required by the CoPUC, USWC provides several types of cost studies. In order to satisfy the requirement that TSLRIC studies be provided, USWC provides what it terms "average direct plus shared residual costs (ADSRC)." In order to satisfy the CoPUC's requirement that services sharing specific costs (*e.g.*, the local loop), the company must show that the revenues from all services using that shared loop cost recover their individual TSLRIC costs (or USWC's ADSRC) plus the shared cost. Finally, in accordance with CoPUC rules, the company must provide an estimate of fully distributed costs (FDC) for the service. USWC has chosen to provide a surrogate FDC cost that is calculated by adding an overhead factor (calculated from the average common and overhead costs in a full FDC study required by the CoPUC for allocation of costs between state regulated and deregulated services) to the TSLRIC (or ADSRC) costs. In general, while this is a very complex subject, Colorado is already addressing it.

72. ***[NPRM ¶ 130] If rates are to be set above LRIC, what is the best way to deal with the problems inherent in allocating common (shared) costs and other overhead? What is the expected magnitude of forward-looking costs under each approach that cannot be attributed to specific services or elements? Should rates be limited to levels that do not exceed***

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words, they assume that the local loop and local transport and switching are already in existence. On the other hand, a pure TSLRIC study for local exchange service should assume that all other services are in existence (including the local loop necessary for completing toll calls) and only capacity necessary to complete the volume of local calls should be included in a TSLRIC study. A study done this way will arrive at TSLRIC costs for local exchange service in the two to five dollar per month range. This is not how it is normally done.

stand-alone costs? The allocation of common (or overhead costs) is a significantly greater problem than one might realize. In a pure TSLRIC cost study, not only would traditional common (or overhead) costs be excluded, joint (or shared) costs would also likely be excluded. As discussed earlier, it is conceivable that the allocation of traditional common (or overhead) costs would be between ten and twenty percent of the company's total costs. If joint (or shared) costs are added to the equation, one might only get ten percent or less of the company's total costs through TSLRIC methods. The use of TSLRIC methodology without the capability to provide for recovery of joint (or shared) costs and possibly some portion of common (or overhead) costs is supported by many of the new entrants since they do not want to pay any of the incumbent provider's common (or overhead) costs.[35] On the other hand, an incumbent provider believes that it must recover those common (or overhead) costs through some rates. They opine that pricing without the capability for the recovery of common (or overhead) costs will force rates to be raised for other LEC customers (*e.g.*, rural residential customers). The CoPUC believes that this delicate balancing act between these arguments should continue to remain within the jurisdiction of the state commissions. The decisions should be made under a common set of guidelines (such as the Colorado Costing and Pricing Rules) on a case-by-case basis. We do not believe that providing a strict policy of giving the new entrants a "jump start" in the market (by pricing at TSLRIC). Most of these new entrants are larger than the incumbents. We also do not believe that there should be an absolute policy toward recovery of

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[35] In hearings before the CoPUC relating to Costing and Pricing, the witness for MCI provided expert opinion that up to 50% of the incumbent's historical costs were uneconomic costs. She suggested that MCI did not wish to continue to pay for the incumbent's uneconomic costs.

specific common and overhead costs, thus continuing in a traditional rate-base cost recovery method. These decisions should be left to the states to allow for compliance with both state and federal law. Also, even though the Colorado rules specify the production of stand-alone cost studies to be used as price ceilings, it is our experience that such studies are not being produced in any jurisdiction.

73. ***[NPRM ¶ 131] Why do you support or object to a particular costing model? Are any States using a successful model? What types of LRIC-based pricing would be consistent with the 1996 Act? Does "reasonable profit" mean that rates should yield reasonable return on capital, including risk assessment?*** As stated above, the CoPUC has adopted what we believe are workable costing and pricing standards for Colorado. We suggest that similar rules be adopted in other states. In Colorado's Costing and Pricing Rules, we require the production of FDC studies. One might conclude that the FDC studies are determined based upon rate-of-return methodology, but we do not specifically use the FDC studies for pricing purposes.[36] We do not believe that the FCC or any state can derive a costing and pricing methodology that is "clear and relatively easy to derive." This is a very complex issue and will remain so, especially in light of the technology being deployed that is insensitive to usage.

74. ***[NPRM ¶ 132] Should a transitional pricing mechanism be used during an interim time period to assist implementation?*** The FCC has traditionally been conscientious about using transition periods when it is apparent that differences exist in different provider's networks, in different states, or in customer acceptance. If the FCC adopts any national policies

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[36] The FDC studies are used for the purpose of evaluating one issue: Is the price significantly above FDC costs and thereby possibly providing significantly more contribution to the shared, common and overhead costs? This is used as one measure of possible price ceilings.

regarding costing and pricing, it should allow for realistic transition periods for implementation. At this time, the CoPUC is opposed to the FCC setting policies as specific as allowing for prices to be set at short-run marginal costs. First, we have never seen a short-run marginal cost study produced by a provider[37] unless the traditional LRIC studies qualify as a proxy for such. This type of requirement would send the wrong signals to the market and would have the distinct possibility of providing artificial support mechanisms for the new entrants.

75. ***[NPRM ¶ 133] Should interconnection and unbundled element rates be set on a geographically and class-of-service-averaged basis for each incumbent LEC?*** We believe that the question of geographic or class-of-service deaveraging is an issue that definitely should be left to each state to decide. Colorado has over 90 percent of its population in less than 10 percent of the state's area. Except for the highly populated areas along the Front Range of the Rocky Mountains, Colorado is largely a rural state. We do not purport to have the only appropriate method of implementing rates for all states in the country. Such decisions should be left each state based upon the geography in that state and the mix of classes-of-service. It is highly unlikely that new entrants will make significant investment to reach the local service subscribers in the rural 90 percent of Colorado without incentives, no matter what policy the CoPUC or the FCC may take.

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[37] Although, in the past, LRIC costs were intended to be a proxy for marginal costs, they have never been termed a short-run marginal cost. The term "long-run" in telecommunications economics jargon is intended to be synonymous with "forward looking". In textbook economics, the term "long-run" refers to the time period necessary for all cost inputs to become variable. Likewise, in textbook economics, "short-run" is a time period wherein the inputs are not variable. From the cost studies we have examined, most of the studies are truly "short-run" in nature using forward-looking technology and costs.

(b) Proxy-Based Outer Bounds for Reasonable Rates

76. ***[NPRM ¶ 134] What benefits exist, if any, of adopting a national policy of outer boundaries for reasonable rates instead of specifying a particular pricing methodology? Are rate ceilings the best means to further the pro-competitive goals of the 1996 Act?*** Establishing price maximums has always been a difficult question to resolve. The CoPUC's Costing and Pricing Rules establish stand-alone costs as the price maximum. However, the Rules recognize that stand-alone costs may be difficult or burdensome to execute. Therefore, the Rules allow for the use of some measure above fully distributed costs as a possible maximum. Because of the implicit subsidies apparently flowing from some services to other services, this standard is difficult to require on a flash cut basis. As discussed earlier, we recommend that the FCC allow the states to implement specific plans, if any, to adopt outer boundaries for reasonable rates. The processes established by the states should deal with these issues. We do not recommend that the FCC adopt any national policy standards for outer bounds on rates.

77. ***[NPRM ¶ 135] Any mechanism used to set rate ceiling for interconnection services and unbundled elements should achieve the three stated principles. Which approach do you favor and how is that approach consistent with the three principles?*** We agree that rates for interconnection services and unbundled elements should: (1) make it possible for competitors efficiently to enter the local exchange market: and (2) constrain any LECs' ability (including incumbents and new entrants) to preclude efficient entry by manipulating costs to their advantage. If a state desires explicitly to establish a price ceiling for specific services, these conditions should be met. The FCC's third proposed condition: that a price ceiling mechanism be as simple to administer as possible, is a laudable goal; however, as discovered in Colorado,

any generic price ceiling mechanism will inherently be too difficult to execute, or might be considered arbitrary. The CoPUC agrees that the two general principles above could be incorporated into a national policy but it should not go beyond the general policy.

78. ***[NPRM ¶¶ 136 through 139] Various methods for establishing rate ceilings.*** These paragraphs involve three suggested type of proxies for the determination of a suitable price ceiling mechanism. We have already stated that this determination should be made by the states, with only broad policies espoused by the FCC.

79. The first proxy method uses the Benchmark Cost Model submitted by MCI, Sprint, NYNEX, and USWC in CC Docket No. 80-286, or the Hatfield study submitted by MCI. We are currently evaluating the Benchmark Cost Model for use in Colorado High Cost Fund evaluation and implementation. However, if the basis for evaluation of any cost model is removed, by the elimination of the underlying accounting-based cost models, the cost model cannot be validated. If the Benchmark Cost Model cannot be validated, it is worthless as a tool for determining price ceilings. In any event, it should be done on a state specific basis, not on a national basis.

80. The second proxy proposes using existing interconnection agreements. We agree with the disadvantages enumerated to using these agreements.

81. The third proxy proposes the use of portions of existing rates, including access charges and local rates. Since the historic pricing of intrastate and interstate access charges has largely been done using accounting-based cost studies, these rates may or may not be relevant to this situation. Although theoretically easier to implement, we believe that to apply access rates to other services does not comport with the first two principles proposed in ¶ 135.

82. *[NPRM ¶ 141] Should all or part of the CCLC and TIC be excluded from any ceiling applicable to unbundled switching or transport elements? What is possible use do these prices offer as ceilings for unbundled elements under § 251?* This section addresses the entire cost recovery scheme for the local loop, including proposed rate ceilings. The CoPUC has determined that the costs of the local loop are shared among all services that use the loop.[38] We do not subscribe to the contention of many industry players that the entire cost of the loop should be recovered by the subscriber's basic service rates. Hence, it is our opinion that the current system of common line cost recovery should not be altered at this time. Any form of separations changes should not occur in this NPRM.

83. *[NPRM ¶ 143] As a counterpart to rate ceilings, is it necessary or appropriate to establish price floors for interconnection and unbundling? What are the potential benefits or detriments? Are they needed to protect incumbent LECs from confiscatory regulatory action? How should they be calculated? How will universal service or other implicit subsidies affect the implementation or desirability of such floors?* The CoPUC does not believe that the FCC should establish any specific price floor. If necessary, the FCC should establish broad policy guidelines relating to competitive issues in the 1996 Act. The CoPUC has established price floors using its definition of TSLRIC. Colorado's rules state that the total revenue from

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[38] The CoPUC Costing and Pricing rules contain the following language. "The access loop is not a separate service but rather is an input necessary for the provision of many telecommunications services. As such, costs associated with the access loop will not appear in the total service long run incremental cost of any single service requiring the access loop but will appear as part of the total service long run incremental cost of the entire group of services requiring the loop. Consequently, prices must be set so that the sum of the revenues from all services requiring the access loop covers not only the sum of the total service long run incremental costs for the individual services but also the shared cost of the loop."

a service should recover the TSLRIC of the service and the total revenue from any group of services in which the given service appears should be equal to or greater than the TSLRIC of the group of services. If the CoPUC determines that it must deviate from this price floor, it must explicitly state the public policy reason for doing so. These requirements are entirely consistent with the 1996 Act.

(c) Other Issues

84. ***[NPRM ¶ 144] To what extent should embedded or historical costs be relevant to the determination of cost-based rates under § 252(d)(1)? What are the empirical differences between the historical costs incurred by incumbent LECs and the forward-looking LRIC services and facilities to be provided under § 251? How much of this difference is attributable to universal service support flows? Should incumbents reasonably be able to claim entitlement to recover a portion or such cost differences? Should LRIC be adopted as a long-run standard, but some interim recognition of embedded costs be permitted in the short run? If so, how should the transition be structured?*** The CoPUC has determined that embedded or historic costs are of significant value and requires such studies to be performed. The CoPUC has used these studies primarily for the purpose of segregating assets, expenses, and revenues between state regulated and state deregulated activities of the providers. This is similar in many respects to the Part 64 process. The Commission has also intimated that it could use embedded or historic costs as a possible price ceiling mechanism. Earlier in these comments we discussed the nature of shared, joint and common costs inherent in the telecommunications industry. Without some method of distributing these shared, joint, and common costs (*e.g.*, in an FDC

study), it is absolutely impossible to make reasonable efforts to recover these shared, joint, and common costs. As stated earlier in these comments (relating to ¶ 130 of the NPRM), we are of the opinion that the difference between forward-looking TSLRIC costs and embedded or historical costs are extremely significant. The amount associated with universal service flows has not been determined by the CoPUC. Issues such as large amounts of shared plant and expenses, universal service subsidy flows, urban to rural subsidy flows, other internal service-to-service subsidy flows, and "uneconomic" overhead costs are all issues relevant to this discussion. Each state and each LEC is likely to have different pricing anomalies in their existing services based upon years of state commission direction on the pricing of local and intrastate services. If the FCC decides to tackle this issue by issuing national standardized policies on specific cost recovery mechanisms, a reasonable transition period is necessary, probably three to five years. Any attempt to implement a national policy will not be in the public interest, will not enhance competition in Colorado, but will cause substantial harm to the ratepayers of Colorado and other states.

85. ***[NPRM ¶ 145] Should states include universal service costs or subsides in the rates they set for interconnection, collocation, and unbundled network elements? Is this consistent with §§ 251(d)(1) and 254?*** Colorado state law has established a Colorado High Cost Fund for the purposes discussed in this paragraph. Please see our comments in CC Docket 96-61.

(4) Rate Structure

86. ***[NPRM ¶ 149-154] What principles and methodologies should be adopted for***